SCIENCE.

FRIDAY, AUGUST 27, 1886.

COMMENT AND CRITICISM.

CAPT. C. E. DUTTON, of the U. S. geological survey, has been recently engaged in making a study of Crater Lake in Oregon, and the latest advices received from him show that he has discovered probably the deepest body of fresh water in the country. Leaving Ashland, Oregon, on the 7th of July, his party, escorted by ten soldiers provided through the courtesy of the general commanding the military department of the Columbia, reached the brink of the wall of the lake on the 13th, having brought with them boats so mounted on the running gear of wagons as to bear transportation over a hundred miles of mountain road without injury. The boats bore the transportation without strain or damage, and preparations were at once begun for lowering them nine hundred feet to the water. The steepness of the wall was very great, being at the place selected about 41° or 42°, and the descent partly over talus, above covered with snow, and rocky broken ledges lower down. The boats entered the water quite unharmed. The process of sheathing them, rigging the tackle, and lowering them occupied four days. A couple of days were occupied in making journeys around the walls of the lake by boat, — the only possible way, — and in examining the rocks and structures of the wall in its various parts. Next followed a series of soundings. The depth of the lake considerably exceeded the captain's anticipations, though the absence of any thing like a talus near the water line already indicated deep water around the entire shore. The depths range from 853 to 1,996 feet, so far as the soundings show, and it is quite possible and probable that depths both greater and shallower may be found. The average depth is about 1,490 feet. The descent from the water's edge is precipitous; at four or five hundred yards from shore, depths of fifteen to eighteen hundred feet are found all around the margin. The greatest depths will probably exceed two thousand feet, for it is not probable that the lowest point has been touched. The soundings already made indicate it as being the deepest body of fresh water in the country.

THE GREAT VALUE of chemical analysis in solving problems which are otherwise incapable of solution, was never better demonstrated than in the recent ice-cream poisoning which occurred in New Jersey. Various theories had been advanced to explain it, any one of which would have accounted for the symptoms produced in the sufferers. The tyrotoxicon discovered by Professor Vaughan, the vanilla bean used in the flavoring extract, and the gelatine employed to give stiffness, were credited with being the possible *materies morbi* by their respective advocates; but no one seems to have suspected foul play. The death of one of the victims was followed by a post-mortem examination, and the organs of the deceased were submitted to Professor Austen of Rutgers college. He has just announced the discovery of arsenic in sufficient quantity to cause death. It is more than probable, that, were the truth known, in all the cases of poisoning by food-products, malice would be found to play a more important part than either decomposition or germs introduced from without.

TWO PERSONS ARE REPORTED as having died from cholera at Chippewa Falls, Wis. That the cause of death in these cases was Asiatic cholera is in the highest degree improbable. Italy seems to be alone among European countries in having this scourge now prevalent, and that any one at so remote a point as the town mentioned should show symptoms of cholera, is hardly to be credited. It is, of course, possible that clothing infected with cholera might be carried in trunks, and opened at a point so far removed, and that those exposed might thus contract the disease, for there is good evidence to prove that infection has been thus conveyed; but it is more than probable that if cholera reaches this country, it will be from the seaboard. When the facts become known, it will doubtless be found, as has so often happened, that the cause of death in the cases at Chippewa Falls was a severe form of cholera morbus.

UNDER A RECENT ORDER of the treasury department, all restrictions on imported rags have been removed, and they have been placed upon the same footing as other merchandise; that is, to be

excluded, disinfected, or admitted according to the discretion of the local health officer. A great deal of unwarranted hostile criticism has been indulged in with reference to rag-disinfection in the port of New York. At a time when an epidemic of cholera was imminent, the health officer of that port consulted with the health officials of the neighboring cities, and of the state, and the action which he took in reference to the disinfection of rags was based upon that conference, and has received the endorsement of the sanitary authorities of the country. While New York has from the very first been vigilant, other cities have been careless and negligent; and that contagious disease has not been introduced by means of infected rags, is due to good luck rather than to good management. That there should be some federal control of such matters goes without saying, for, while state rights are to be respected, there is such a thing as carrying that principle too far. The right to permit contagion to enter and ravage the country, because a quarantine would be expensive, is not a right which any state can claim as guaranteed it by the constitution. If the general government can restrict the sale of oleomargarine, it can certainly be no great stretch of its powers to adopt such general measures as will apply to all its ports of entry, by which commerce and the public health are at the same time protected.

DR. HARRINGTON, OF BOSTON, has recently had under his care four patients suffering from chromium poisoning. The first case was that of a cap-maker, who, after handling and cutting a large quantity of dark-blue cloth for the manufacture of military caps, began to suffer from an intolerable itching of the hands, face, neck, and scalp, which was followed by ulceration, causing running sores. The symptoms disappeared after she ceased work upon this cloth, and returned when she renewed her work upon it. The second case was that of a clergyman, who was similarly affected after wearing a pair of brown woollen gloves. The other cases were young children, who had, previous to the appearance of the first symptoms, put on for the first time new suits of brown woollen clothes. An analysis of the goods in all the four instances revealed chromium. The chromium mordants are now being extensively employed in dyeing, much more so than formerly, and the range of colors produced by their aid is very great, including brown, brownish red, claret red, olive, yellow, old gold, purple, blue, black, buff, and gray. Dr. Harrington, at the conclusion of his paper describing these cases, read before the Massachusetts medical society, says that it is yet to be determined whether in these cases the compounds formed by the mordant and the dye-stuffs are in themselves the active poison, or are decomposed by the secretions of the body, with liberation of simple chrome compounds.

THE BUFFALO MEETING.

THE least that can be said of the meeting of the American association for the advancement of science which has just closed, is that it was thoroughly enjoyable. The arrangements made by the local committee for the entertainment of the association were admirably adapted to promote the objects of the meeting. The simple habits of the members led them to welcome rather than to regret the absence of official festivities on a large scale, but prepared them to enjoy the hospitalities tendered by leading citizens and organizations, which were noteworthy both for their ample scale and their unostentatious simplicity. On the excursions to Grand Island and to Niagara, every opportunity for pleasure and profit was afforded without in any way troubling the members by detailed programmes or burdensome attentions.

The smallness of the meeting was its only disappointing feature. The beautiful summer climate of Buffalo, its central position between the east and the west, and the prospect of a visit to one of the grandest and most interesting of natural phenomena, just freed from the onerous exactions which such a visit used to entail, would, it was expected, attract one of the largest assemblages of members that had yet been witnessed. Yet, not one-fourth of the membership was found at the meeting. The paucity of southern members was especially noteworthy. One great purpose of the organization is to bring into contact the intellectual element of the north and the south as well as of the east and the west, and the association can render no more worthy service than that of promoting education as well as research in every quarter of our land. It is much to be desired that workers and educators in the south should point out to their colleagues in the north how that stimulus of personal contact, sympathy, and attention, so necessary to the fulness of intellectual development, can best be secured to their section.

The scientific outcome of the meeting is, on the